

WHAT IS CLAIMED IS:

1. A method for controlling and monitoring an industrial controller using a portable wireless device, utilizing a system including a programmable logic controller (PLC), a local server, and a wireless Internet Service Provider (ISP), said method comprising the steps of:

5 monitoring and controlling a system using a programmable logic controller (PLC);

exchanging communications between the PLC and a local server;

exchanging communications between the local server and an Internet Service Provider (ISP) server utilizing the Internet; and

10 exchanging communications between the ISP server and a wireless user communication device.

2. A method in accordance with Claim 1 wherein said step of exchanging communications between the PLC server and the local server further comprises the step of sending PLC operational data from the PLC to the local server.

15 3. A method in accordance with Claim 2 wherein said step of exchanging communications between the local server and the ISP server further comprises the step of sending the PLC operational data from the local server to the ISP server.

20 4. A method in accordance with Claim 3 wherein the wireless user communication device includes a display for displaying information, said step of exchanging communications between the ISP server and the wireless user communication device further comprises the steps of:

sending the PLC operational data from the ISP server to the wireless user communication device; and

displaying the PLC operational data on the wireless user communication device display.

5           5. A method in accordance with Claim 1 wherein the wireless user communication device includes a user interface for inputting information to the wireless user communication device, said step of exchanging communications between the ISP server and the wireless user communications device further comprises the steps of:

inputting at least one PLC command;

inputting PLC operational response data using the input device;

10           sending the at least one PLC command from the wireless user communication device to the ISP server; and

            sending the PLC operation response data from the wireless user communication device to the ISP server.

15           6. A method in accordance with Claim 5 wherein said step of exchanging communications between the local server and the ISP server further comprises the steps of:

            sending the at least one PLC command from the ISP server to the local server using the Internet; and

20           sending the PLC operational response data from the ISP server to the local server using the Internet.

            7. A method in accordance with Claim 6 wherein said step of exchanging communications between the PLC and the local server further comprises the steps of:

25           sending the at least one PLC command from the local server to the PLC; and

sending the PLC operational response data from the local server to the PLC.

8. A method in accordance with Claim 1 wherein said step of monitoring and controlling further comprises the steps of:

5 controlling the operation of the PLC using the at least one PLC command; and

controlling the operation of the PLC using the PLC operational response data.

10 9. A system for controlling and monitoring an industrial controller using a wireless device, said system comprising:

a programmable logic controller (PLC);

a local server configured to exchange communication with said PLC;

a wireless Internet Service Provider (ISP) server configured to exchange communication with said local server using the Internet; and

15 a wireless user communication device configured to exchange communication with said ISP server.

10. A system in accordance with Claim 9 wherein said local server further configured to access PLC operation data from said PLC.

20 11. A system in accordance with Claim 10 wherein said local server further configured to communicate the PLC operation data to said ISP server.

12. A system in accordance with Claim 11 wherein said ISP server further configured to communicate the PLC operational data to said wireless user communication device.

25 13. A system in accordance with Claim 12 wherein said wireless user communication device further configured to display the PLC operational data.

14. A system in accordance with Claim 9 wherein said wireless user communication device further configured to initiate at least one PLC command and communicate the PLC command to said ISP server.

15. A system in accordance with Claim 14 wherein said wireless user communication device further configured to initiate PLC operational response data and communicate the PLC operational response data to said ISP server.

16. A system in accordance with Claim 15 wherein said ISP server further configured to communicate the at least one PLC command and the PLC operational response data to said local server.

17. A system in accordance with Claim 16 wherein said local server further configured to communicate the at least one PLC command and the PLC operational response data to said PLC.

18. A system in accordance with Claim 9 wherein said wireless user communication device comprises:

a user interface configured for the input of information to said wireless communication device; and

a display configured to display the user input information and information received by said wireless communication device from said ISP server.